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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,833	07/10/2003	Kenichi Suzuki	033294-010	8884

7590 07/21/2005

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EXAMINER	
NGUYEN, XUAN LAN T	

ART UNIT	PAPER NUMBER
3683	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,833	SUZUKI ET AL.	
	Examiner	Art Unit	
	Lan Nguyen	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) *4-6* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☒ Claim(s) *3* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomerie et al. (GB 1,127,731) in view of Budecker et al. (USP 4,807,945).

Re: claim 1, Montgomerie et al. show in figure 4 an accumulator, as in the present invention, comprising: the accumulator having an inflow passage 40 into a hydraulic fluid chamber inside the bellows of the accumulator and a discharge passage 49 independent of the inflow passage, from which the hydraulic fluid from the hydraulic fluid chamber is discharged, the accumulator not operating when the pressure in the hydraulic fluid chamber is less than a set pressure and operating when the pressure in the hydraulic fluid chamber is at least the set pressure; and a valve mechanism 47 which restricts the discharge of the hydraulic fluid from the hydraulic fluid chamber in a state in which the accumulator does not operate and which releases the restriction on the discharge of hydraulic fluid in a state in which the accumulator operates, wherein the valve mechanism has an air discharge passage 47a for discharging air from the hydraulic fluid chamber in a state in which the accumulator does not operate, as shown when the accumulator is first filled with hydraulic fluid, existing air inside the bellows

would be escaping through air passage 47a until the hydraulic chamber is full with hydraulic fluid. Montgomerie discloses that the accumulator is for regulating pressure but does not disclose the environment for the accumulator to be in. Budecker et al. teaches an old and well-known environment for an accumulator in a brake system wherein the accumulator 13 is connected between pump 23 and actuator 17, as claimed in claim 1, to absorb the pulsations in the hydraulic circuit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed Montgomerie's accumulator in an old and well known hydraulic brake circuit as taught by Budecker in order to regulate the pressure in the hydraulic circuit which in turn would reduce the pulsations in the hydraulic lines for better control of the brake system.

Re: claim 2, Montgomerie shows the valve 47 to be installed inside the accumulator.

Allowable Subject Matter

3. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's argument submitted 4/8/05 has been considered but found non-persuasive.

Applicant argues that when the pressure difference is not sufficient enough to overcome the pre-stressing of the washers 43 in the accumulator of Montgomerie, the bellows would not contract. Hence, control element 47 would not be displaced into the sleeve 48. It is noticed that in Applicant's accumulator, the seal 12c would act in the same way as the pre-stressing force of the washers 43 of Montgomerie to stop Applicant's spool 12d to be further displaced into the sleeve 16. Furthermore, Montgomerie's bellows comprises metal washers 43. Applicant's metal bellows 12 is of a similar structure and metallic material. If Montgomerie's metal bellows has a pre-stressing spring force, wouldn't Applicant's metal bellows comprise the same?

Applicant further argues that Montgomerie's accumulator works based on the pressure difference between the pressure inside the bellows and the pressure inside the housing 42, not based on a set pressure. It is believed that because of the designed pre-stressing of the bellows and the designed set pressure within the housing 42 that would cause the valve 47 to rise or fall. Hence, Montgomerie's accumulator also works based on a set pressure.

The rejection is still deemed proper and is repeated above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on M-F, 8 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lan Nguyen
Primary Examiner
Art Unit 3683

Lan Nguyen
7/18/05